

WIPO/IP/HEL/00/13

ORIGINAL: French

DATE: October 2000



NATIONAL BOARD OF PATENTS AND
REGISTRATION OF FINLAND



WORLD INTELLECTUAL
PROPERTY ORGANIZATION

**FORUM ON
CREATIVITY AND INVENTIONS – A BETTER FUTURE FOR
HUMANITY IN THE 21ST CENTURY**

organized by
the World Intellectual Property Organization (WIPO)
and
the National Board of Patents and Registration of Finland

in cooperation with
the Ministry of Trade and Industry of Finland,
the Ministry of Education, Science and Culture of Finland

and
the International Chamber of Commerce (ICC),
the International Federation of Inventors' Associations (IFIA),
the Confederation of Finnish Industry and Employers (TT),
the Finnish Inventors' National Federation (KEKE)

**Finlandia Hall
Helsinki, October 5 to 7, 2000**

CONDITIONS FOR SUCCESSFUL ECONOMIC AND SOCIAL USE OF
INVENTIONS AND INNOVATIONS

FINANCING DEVELOPMENT OF INVENTIONS AND INNOVATION TO THE
PRODUCT AND THE MARKET STAGE

Document prepared by Dr. Paul K. Fokam, President, CCEI Bank and President of
KAF Invest, Yaoundé, Cameroon

Your Excellency, delegates and dear colleagues,

1. Allow me to take a few minutes of your precious time to convey my sincere thanks to the organizers of this forum, who have invited my modest person to participate in this debate.

2. In Africa, the words innovation and invention are very common in the language of the young. However, almost everyone is convinced that this is an area reserved "for the whites". Before going any further let us try to find a definition of certain key terms, i.e. Invention and Innovation.

I. PREAMBLE

(a) A few key definitions

Invention

3. It is generally accepted that an invention is the discovery of a method, formula or technology.

Innovation

4. The word innovation gives rise to a great deal of misunderstanding. For some people, it signifies a technological discovery, while for others it designates something which resembles the original big bang. It may be deduced that innovation covers a broader concept which is translated by a continuous improvement, whereas invention is one of the forms which innovation may take.

5. In the light of this explanation I propose to deal in this address, essentially with innovation which is a broader term covering the notion of invention.

(b) The situation in Africa

6. My brief 15 years of experience devoted to the promotion of enterprise and business in Africa, has shown me just how resistant we were to innovation in our roles as players.

7. This attitude is all the more rooted in popular images, since it is generally accepted in Africa that in "business" success comes more as a result of brawn than of brain.

8. Facts have also helped to strengthen this backward-looking view. Up to the 1970s, the vast majority of the most reputable businessmen were illiterate or had a modest level of basic education; it was precisely those who had failed in their studies that launched themselves into business. Research laboratories are either non-existent or completely rundown. As regards the small number of researchers residing on African soil, the situation is all the more worrying as, in most cases, these researchers in question have already worked in foreign laboratories, which are better equipped and have an appropriate level of revenue. They are so poorly paid in their own countries that they are sometimes reduced to begging.

9. What a paradox for this continent which, encouraged to do so by the BRETTON WOODS institutions, has made the fight against poverty the top priority for the first decade of the third millennium. I think it is difficult, if not impossible, to win the battle against extreme poverty without a minimum dose of invention and innovation in certain key sectors. This

preamble invites me to suggest that we should examine together certain key points, as follows:

- the importance of innovation in wealth creation activities;
- why is Africa so far behind?
- reasons for hope;
- conclusion: "the way to heaven is strewn with good intentions."

II. IMPORTANCE OF INNOVATION IN EMPLOYMENT CREATION ACTIVITIES

(a) Innovation: a key to sustaining wealth creation activities

10. The process of innovation allows change to be anticipated, located and systematically exploited. We can therefore deduce that change is a breeding ground for innovation. Innovation cannot occur without reappraisal. Reappraisal is the raw material of change. Innovation is therefore the product of change.

11. The process of innovation may be divided into five distinct steps as shown by the figure below:

1	2	3	4	5
Reappraisal	Research	Assessment	Development	Exploitation

12. The implementation of this process in a given enterprise allows output and productivity level to be increased. Increased output and productivity is therefore a guarantee of the sustainability of modern enterprises.

(b) Innovation: a resource which allows the shortcomings and deficiencies of non-renewable resources to be compensated

13. Innovation is undoubtedly the product of knowledge; the prosperity of nations, enterprises and individuals depends on their capacity to navigate the realms of knowledge. Power is therefore generated by the optimum management of knowledge and, above all, of know-how, i.e. the technical capacity for implementation. Furthermore, the more groups of individuals manage to form "intelligent communities" capable of initiative, imagination and rapid reaction, the more they are able to ensure their survival and even to assert themselves in a very competitive environment, for example, Japan and Switzerland.

14. Our survival, our success and our ability to find a respectable place for ourselves in the third millennium are dependent on the flexibility and validity of our production, processing and knowledge-exchange networks.

III. WHY IS AFRICA ABSENT FROM THE INNOVATION SECTOR?

15. This question appears to me of major importance, when we consider that nowadays knowledge remains an inexhaustible source of wealth; in practical terms, the importance of a country or a continent is also measured above all by the number of its inventions, for example the USA. The more capable you are of registering patents, the greater your potential for wealth creation and the more you are able to develop your power in all areas. Several factors help to explain the profound slumber in which Africa finds itself.

(a) The educational system inherited from colonization

16. Schools were introduced in sub-Saharan Africa at the beginning of the nineteenth century by the colonial powers. These powers introduced what is commonly called "the school of hostages", since it essentially recruited the sons of chiefs and other rulers. It was necessary to perpetuate educational domination and the deepest possible reflexes.

17. The aim of schools was therefore to transform the sons of chiefs in particular and Africans in general into "little white negroes." This procedure was designed, in the short term, to perpetuate its domination over the black race. In short, it amounts to an education alien to the mentality of the colonized person, ignoring his basic needs and capable of "brainwashing" him in the transition from a "savage" culture to one of "civilization", the only one able to emancipate negroes and raise them to the level of "Men."

Two aims were therefore assigned to the colonial school

18. Providing countries with a colonial -type administration: the functionality of the system was based on the training of "native" subordinates. It was not therefore a question of education for all: schools were selective, since colonizers needed a limited number of subordinates, as auxiliaries to the colonial administration for the purposes of carrying out simple repetitive tasks not requiring a great deal of thought. This gave rise to a certain ambiguity in relation to education policy. Selection was intended to be political (sons of chiefs and other important dignitaries) but also qualitative (selecting the best), since it was necessary to demonstrate that the school of the "white man" opened the door to social success. These two imperatives were not obviously compatible. However, this type of school had a different aim: the correlation between training and employment. It was therefore designed to train only the small number that could be absorbed by the administration.

19. This colonial school produced results that had not been anticipated. The literate pupils trained in this manner served as interpreters between the native peoples and the colonial administration. The little "white negro" was therefore able to translate not only the message of the colonizer to the local population but also, using his mastery of local culture, explain to the colonizer the essential cultural elements of those that were colonized. They became so to speak "collaborators" and true "partners"; the aim was not only to form selective schools but to make schools available to all the natives so as to form an indigenous society familiar with the language of the West and its ideas, so as to achieve the closest possible links with its culture, philosophy and, in short, its *modus operandi* and *modus vivendi*. The ultimate aim was, of course, to marginalize, if not to abandon, the local cultures that were incompatible with "the emancipation of the negroes."

20. Education was intended to allow a colonized individual to assimilate the protection of the economic, administrative, military and political interests of the colonizer. In this sense, the teaching of the colonizer's language became an instrument for inculcating western values, which alone were able to release the "little African savage" from his state of complete ignorance so as to give him the status of an emancipated savage able to distinguish day from night. This trend in training was common to all educational activities. We recall numerous occasions on which we sang, recited verse or read!

FRANCE IS OUR MOTHER LAND It is France that feeds us with potatoes and macaroni. If war breaks out, we are soldiers, French soldiers, ever courageous.	OUR ANCESTORS THE GAULS brought us civilization which will release us from our savagery and barbarity.
CAMEROON, CRADLE OF OUR ANCESTORS In times gone by, you lived as barbarians... Like the sun beginning to rise, Little by little you are released from your savagery. (old version of the Cameroon national anthem)	

21. This willingness to assimilate “negroes” was all the stronger since missionary education was designed first to respect so-called vernacular languages and to work to safeguard the part of the cultural heritage that was compatible with religious education. This was, however, opposed by the colonial administration which threatened missionary schools with the withdrawal of subsidies. Thus, we were the last class in 1953 to benefit from the teaching of the local language as part of our training cycle.

The post-colonial school

22. After the period of independence in the 1960s, almost all the independent States took stock and arrived at the same conclusion: colonial schools were places of alienation. The Swiss linguist, Ferdinand de Saussure (1857 - 1913) wrote: “as most of the French colonials said, if the natives are resistant to the benefits of the civilization with which we provide them, it is their prejudices which have not yet allowed them to understand the advantages which they might gain from it. They retain these prejudices as a result of the relics of their former States, institutions and languages. Let us eliminate the remains of a period that is now passed. If there is no way of changing the present generation, let us educate future generations. Let us teach the children our language, let us inculcate in them our ideas and France will soon have millions of, if not new citizens, at least faithful and grateful subjects.”

Raising awareness

23. This policy of assimilation was denounced a century ago with regard to India by Williams, an Oxford professor: “I have encountered few truly educated men but have met many semi-educated and untrained men... they abandon their own language, their own literature, their own religion, their own philosophy, the rules of their own castes, their customs enshrined by centuries without, however, becoming good disciples of our sciences, honest sceptics or sincere Christians.”

24. The concern with restoring the dignity of Africans therefore necessarily dictated a revision of the education system. True decolonization affirmed wholeheartedly that the independent States would be political, economic and cultural. Thus, several legislative texts were drawn up.

25. The legislator in Mali stated in relation to the motives underlying the 1961 Law on Education Reform: “on a cultural level our past has been jealously concealed from us or has been taught to us in a completely distorted manner. Our heroes assumed the figures of executioners always ready to kill, pillage, betray and violate the agreements which they had signed without a thought, there is a kind of scorn which instills in us a feeling of self-negation.”

26. Individuals generally identify themselves with these heroes. If the heroes of a group are devalued, all the members of the group are, including in their own eyes, also devalued. Moreover, legislators think that the devaluation of the cultural identity was intentional on the part of the colonizer: "our past was jealously concealed from us" and the "little savage" has become the "great man of culture."

Education reform

27. Having made comparable assessments, all States undertook to revise the entire content and purpose of education. However, despite a precise assessment, the legislators actually made very few changes. There are several reasons for such an attitude, which belie common sense.

28. Firstly, in its task of reorganizing education, the Ministry of Education was assisted by the technical advisers made available to it by the colonizer, since their official duty was to assist the colonizer and their unofficial duty to do everything possible to maintain the status quo. Subsequently, the textbooks adapted to the new ethics were unsuitable, since the national had neither the training nor the financial capacity to develop textbooks which complied with the spirit of the reform. The State was obliged to conform with what existed, with serious long-term effects.

29. Finally, no State had a available body of teachers able to apply the reform. The financial means were insufficient and education was not the top priority.

The myth of qualifications

30. Schools nowadays are not about providing an education; they are redesigned to give qualifications. Teachers appear to be moving further and further away from their primary vocation, i.e. that of forming men and women who, with or without qualifications, must be able to play a useful role in society."

31. This comment provides a better analysis of the state of training in Africa at the dawn of the third millennium. We may state that education in Africa continues to be based on systems and structures dating from the colonial era. Very few countries can boast of having made primary education available to all since independence.

32. In secondary education, the divide is even greater. UNESCO statistics show that less than 8 percent of children of secondary school age have the possibility to attend such schools.

33. As regards higher education, less than 1 percent of the age groups concerned have access to such education and 0.2 percent are generally successful in literary or legal disciplines.

34. There is therefore no doubt that the key principles of training able to guide us towards innovation must be re-examined as a matter of urgency.

35. The education system of the future must allow us access not only to science, mathematics and technology, but also to reconcile ourselves with our culture, our sense of being and our modus vivendi.

(b) International aid: a pleasant sleeping pill

36. Let us not be mistaken! I am convinced of the unquestionable value of the concept of aid. It expresses human solidarity beyond borders and the worldwide concern with the creation of a better life for the less fortunate masses in developed countries; it provides protection given by the wealthiest to those in desperation. It is also an olive branch held out at a particular time in life to an individual, a community and a nation, releasing them from a hopeless situation in order to regain a taste for life and make their dreams come true. Despite all these virtues, international aid for Africans remains an instrument of depersonalization.

37. The first international aid, and also the most often cited because it was the most successful, remains that known as the Marshall Plan (USA). For several years, it represented more than half of the resources of advanced countries. It enabled Western Europe to raise itself from the ashes of the Second World War.

38. Why has international aid for Africa not produced comparable effects? The Marshall Plan was originally motivated by the generosity of the American people. For several years, the United States devoted close to 3 percent of its GNP to helping Europe, mostly in the form of donations. A further original motivation should not, however, be forgotten: it was necessary to help Europe to rebuild itself so that it was strong enough to resist the expansion of communism. A defensive element was therefore added to a humanitarian one as well as a sentimental factor. America was populated by, and retains the mark of, immigrant populations from Europe scarcely more than three centuries previously. It might therefore appear normal for the descendants of the old continent to have thought of their cousins in the old Europe, whose economy was a drift. Finally, the Marshall Plan had an economic cause designed to demonstrate that highly productive modern economies could not disappear.

39. Even though these motivations have been transferred to the general concept of aid for Africa, such aid has been addressed to countries which, unlike those in Europe, were just emerging, without anything of what was necessary for the construction of a modern State. We should not therefore be surprised at the pitiful results obtained when reconstruction and development, and emancipation and alienation were confused.

40. The major concern of the former colonial powers was not the development of African countries but the preservation of the economic, political and cultural relations already established. When France and Belgium separated from their former colonies, a bilateral aid system existed. Their familiarity with local conditions probably prevented them from having too many illusions.

41. When other northern European countries such as Sweden arrived on the African stage, the inadequacies of the system were well enough known to encourage the introduction of a more significant humanitarian input. The fact that such countries did not have interest to preserve or that they were less burdened by internal problems probably facilitated the adoption of a less selfish attitude.

42. Germany and Japan have reappeared as highly formidable powers, and both give precedence to economic and commercial considerations. The objective needs of aid were therefore to give way to the political, economic and subjective demands of the masters of supply.

43. The concept of "conditional aid" has been enshrined in this quest for self-interest by donor countries. This practice became more widespread during the second half of the twentieth century. It placed the obligation on the country receiving this aid, in the form either of donations or of loans to spend it in the donor countries and to purchase the goods and services of those countries, often at above market prices. Even when trying to find skilled workers, "beneficiary" countries had no choice but to turn to donor countries, even if the latter had such workers only either on the spot or in other countries. Moreover, is not conditional aid often no more than an export subsidy for donor countries paid by the country receiving it?

44. From the point of view of Africans, how may the cost be measured of wastage and ill-conceived decisions, resulting from unfunded assistance for the application of inappropriate techniques, the product either of the crude transfer of western experience in a completely different social and economic environment, or subsequently of inertia, incompetence and the rivalries of the "benefactor", or finally and quite simply of the choices made under the pressure of economic interests.

45. How is it possible to discern the degree of charlatanism in numerous draft study missions or consultants' reports and, even when these reports appear to be valid, how may the price to be paid be explained? How may these tasks be attributed to the credit of aid? May those done under the same conditions in western countries be considered a model? How is it possible to evaluate the proportion of technical assistance which constituted pure and simple wastage resulting from a lack of follow-up, without which it was to be foreseen that the original configuration was meaningless?

46. As regards aid for education, who can distinguish between funding intended for the promotion of the culture of a donor country, the promotion of its own language and the funding actually assigned to the promotion of education in the receiving country?

47. How is it possible to determine in these conditions to what extent education in metropolitan France has contributed to the progress made by Africans or rather to detaching them from their roots and to increasing the divide between the expatriate intellectual elite and the majority?

48. The divide in question is one of the acknowledged obstacles to authentic and widespread development. This kind of education has nothing to do with the development of an ever more acute form of tribalism.

49. Part of agricultural reform has continually been postponed as a result of food aid which, whenever it has been granted, has managed to avoid a famine which is dangerous in political terms but which, in economic terms, could have been beneficial in that it made Africans aware of the need to work much more assiduously in order to avoid the recurrence of a similar disaster.

50. Providing an economically backward country with television programs which offer all kinds of pastimes to a minority of rural zones or to the well-to-do fringe of the urban population is all very well and good!

51. How to determine the real source of aid when, as part of a privatization program in our countries, all the previous studies present the same opinion, i.e. organizing the enterprises concerned so that they are more attractive to international investments, whereas nothing is done to generate the development of local capital?

52. It is useless to increase the level of questioning since, firstly, this would lead to exaggerate the assumption that there was one participant detrimental to the others; secondly, it would be likely to minimize the impact of the African lack of concern, due in most cases to inexperience, laziness, lack of perseverance, pride, personality and courage.

(c) Work: a divine curse in Africa

Work and poverty

53. What perception of work exists? Before dealing with this question, I would like to propose this definition: work is the body of the efforts made by human beings to identify and transform a commodity, and to generate and protect wealth.

54. For Africans, work is not an end but a means and, moreover, an unpleasant necessity. Work is therefore a chore which must be disposed of as quickly as possible.

55. To be the son of Bill Gates, of Bolloré, of anational President or of Victor Fotsa and yet to work is incomprehensible.

56. According to tradition, work was reserved for slaves and second-class citizens. That is why, in West Cameroon for example, as far back as the 1940s and even 1950s, a chief's son did not go to school, apart from in the regions of Bandjoun and Bafou. A free and respectable man does not work. He fights wars, which are an noble undertaking. Ordinary manual labor is, however, the work of slaves. In the 1970s – and perhaps still today – many African manual workers, after they have received their wages, disappear until they have spent them.

57. In the 1980s in Cameroon, we saw two queues for at the end of each month when public servants received their wages from the Treasury: one of men waiting to receive their pay and the second one of their spouses waiting for their share to cover the housekeeping. According to a legend, men from the South, who live by the ocean, go fishing each morning to catch two fish. They sell one of them so that they can buy salt and other condiments necessary for cooking, and keep the other one to eat.

58. The only work that Africans relish doing is farming. A landowner knows that the more he grows, the more he will harvest and be able to feed his family; even if sometimes part of the crop is given up to them. Otherwise, the obligation to work is not perceived to be a necessity. It is more a case of a social obligation arising from contact with the Western civilization, since work had to be done if taxes were to be paid, children were to be sent to school, and all sorts of social and domestic expenses were to be met.

Westernization and poverty in Africa

59. Caught between two civilizations, an African is a sort of half-caste, a heir of the ancestral culture, but also the bearer of European culture, neither completely African, nor truly European. An African must, however, establish his own society if he is to have a chance of emerging out of underdevelopment.

60. The Brazzaville Agreements (which introduced the forty-hour week in French-speaking Africa in 1957), the Western industrial revolution and the workers' revolution led by Marx and Lenin have placed African in a niche of functional specialization and laziness.

61. The West also taught Africans to repeat the same tasks by following blindly the standardized procedures; they had no right to change anything at all. Qualifications held by Africans were recognized only if they proved themselves able to repeat what they were forced to do without making any mistakes. Any kind of change, even an innovative one, was a serious error worthy of dismissal. Furthermore, their IQ (Intelligence Quotient), which was too low in relation to that of their western colleagues, did not allow them to think. In order to keep their jobs, they must learn to repeat and to repeat well. Thus, they would be sure of climbing the hierarchical ladder as far as they were able and of meeting what I have referred to elsewhere as “the challenge of existing”. This manner of existing enabled the West to implement its plan of “blackening” the managerial ranks in the process of Africanization. Africans could therefore cherish the illusion of being a multinational enterprise director or simply a head of State.

62. History is teeming with examples of countries that have become rich through hard work but there is not a single nation that has become rich without working. The United States has developed through the exploitation of slaves who had to work without a fixed timetable or a pre-established break, as well as through the untiring efforts of its sons and daughters for year on end. Europe reached its level of development only through the labor of its sons. In the eighteenth and even at the beginning of the nineteenth century, the average working week was 108 hours. Today, South Korea and Japan are known for their economic dynamism even though they have virtually no mining resources. If they have developed, it is through human effort alone.

63. There is no doubt that man’s greatest wealth lies in the product of his work. If its value is to become just as important, it must be the subject of a consensus defended and put into practice by all social players.

64. In other words, in Africa a large part of the continent is a leisure park but work there is suppressed by the law in terms of an arbitrary and incoherent restriction of working time. Moreover, a good worker is still perceived in social terms: either he is a man or he wants to “show off”!

65. Since wealth is a gift from heaven which God places in the hands of one of the chosen few to achieve equitable distribution, the only possible criterion is that of “each according to his own degree of laziness.”

66. In the final analysis, if Africa is to emerge one day and become a rich continent, it must rethink its method of working and of transforming its environment, so as to promote creation and development of a permanent wealth in the form of knowledge.

67. In short, research must be promoted. In order to stimulate scientific and technical research, which alone allows significant growth in the inexhaustible wealth of the country represented by knowledge, exceptional levels of intelligence must be discovered. In an atmosphere of intellectual competition, young people receive encouragement which stays with them for life and makes them demanding toward themselves and toward their partners. This generates team spirit which gives participants a boost and enables bold research to be undertaken and a good rhythm to be established in the creation of patents. This momentum is generated only in an environment where criticism and contradictions prevail, raised to the level of the norm, and where only logical and thorough reasoning guides action. Moreover, Africa spends all its time destroying its intellectual potential, either through its own lack of concern or as a result of intolerance or of the implementation of inappropriate policies.

(d) Lack of self-confidence

68. "If we do not do stupid things from time to time, we would not do anything intelligent."

69. Racial prejudice helps to explain the loss of self-confidence which inhibits a large number of Africans. Such prejudice is the result of a series of publications, of ways of presenting things, doing, saying and seeing, which transform an African into an imperfect and incomplete being, whom it is the duty of the whites to raise as part of their civilization mission. The imagination of whites in relation to blacks is based on numerous archetypal representations founded on biblical myths, medieval legends and the first accounts of sixteenth century explorers.

70. The Old Testament and a whole range of Christian imagery have made black the color of sin and baseness. In Genesis, the curse of Ham, son of Noah, marks his so-called colored descendants with the seal of infamy. In churches, the devil is painted in black and the angels in white in ecclesiastical practice, and black is the symbol of impurity and death, despite the old multiplication of "black virgins" from Spain to Poland.

71. The same is true of public and secular life; the Chanson de Roland (Song of Roland) shows Charlemagne's army attacking Ethiopian soldiers from a cursed race, who are blacker than ink. Johnny Halliday seems to have been inspired by this, as he sings "Black is black, there's no hop."

72. In medieval Europe, they began to claim that Blacks ate human flesh, that they were of low intelligence and hardly understood anything. The black continent knew neither faith nor law, inhabited as it was by beings closer to animals than they were to humans.

73. In the century of enlightenment, the slave traders, to justify their crimes focussed on the incompleteness of the black man, since "Blacks are lazy and lax, but slavery will give them a taste for work, abstinence, dignity and will promote our mission of civilization." Even the philosophers of the eighteenth century gave credit to the idea of the "big child" whom it was necessary to introduce to civilization. The universal dictionary of trade, while recognizing that it "is difficult to provide complete justification for the trade in negroes", points out that slavery has the merit of educating them and introducing them to Christianity.

74. With the conquest of Africa, the nineteenth century emphasized the violent, cruel and brutal nature of the people that resisted "civilization." It was necessary to justify the behavior of the missionaries and to support the "civilization mission." In publications (books, newspapers, travelers' tales and so on), Africans are described as sanguine, barbaric, primitive and cannibalistic. Reference is made to the savagery of the African kingdoms.

75. There was also a scientific discourse on the "primitive" which replaced the (good) "savage" and introduced the concept of ethnology. The work of Lucien Lévy-Bruhl on the primitive mentality (1922) echoes the observations of Freud, in particular in Totem and Taboo (1912), on the similarity in the thought processes of the primitive, the child and the neurotic.

76. School books at the close of the 19th century, and even at the beginning of the 20th century, quite innocently presented the white race as being the most perfect at the same time as the manner in which the black race was described was tantamount to denying them

humanity. The same was the case in the literature of that time. A missionary published an ethnographical handbook bearing the title “The Savages of Africa.”

77. At the beginning of the last century, apart from the stereotypes which descended in part from the primeval night, the blacks of Africa were all together unknown to the French. It was not until the First World War, during which the “black force” was used, that the French met up with them. The involvement of Senegalese riflemen during the conflict and then their stationing in France between the wars led to a degree of contact with France itself. Without disappearing altogether, the stereotype of the “primitive” man was replaced by that of the “good nigger”, gentle, friendly, naïve and “amusing”.

78. Abo ok published in 1920 reflects those changes: “Strangers in my Country”. The author, Lucie Cousturier, a lady of bourgeois society, recounts the way in which her neighbors “welcomed” the Senegalese troops: “We shall no longer be able to let our daughters walk out amongst these savages. We shall not even dare to go out ourselves to cut the grass or collect wood. Just imagine! If we were captured by these gorillas!” The terms used by these good ladies reflected the state of mind of the French at that time: savagery, monstrous sexuality, animality.

79. Just as certain 19th century abolitionists, the “indigenophiles” (Lucie Cousturier was an archetypal example) felt that an African was not a “savage” although he was not altogether a responsible man: he therefore remained a “big child”, an incomplete man, that had to be accompanied towards the adulthood of civilization.

80. Between the wars, the African was indeed personified as the “Y’abon” negro of the Banania advertising. In every day life, he was the rifleman that could be seen in the vicinity of his barracks or again in the page in a luxury hotel, “the exotic spice of a society that was just a little bored.” All these clichés were further accompanied by a “negro fashion” that represented both the best and the worst.

Cultural abandon

81. The complex concept of culture gives rise to a debate in which two sides are opposed. The one restricts its definition to the symbolic dimensions, whereas the other extends it to the way of life of a people. I prefer this broad notion of culture. I therefore define culture as the whole set of values, beliefs, customs, standards and lifestyle of a people at a given time.

82. Familiarized with western customs, Africans have been obliged to abandon, to a certain degree, their own culture, to deny their origins, to reject the basis of their being in order to appear as “whites” without their skin and “blacks” without their soul. However, permit me to trace back the foundations of a mosaic culture bearing within itself a real potential for development that is self-sustained, but which has been abandoned in favor of a culture that is hardly assimilable by Africans.

83. Africans are traditionally rooted in their rural community. The basic community, the village, has two essential futures. Firstly, membership of a group implies a high degree of solidarity between all members of the group and the difficulty of surviving if excluded from the group. Secondly, African society is a highly hierarchized, vertical society, where elements such as age and titles of notability are essential in order to determine the place of each person. Thus, the individual finds his place in a society in which the intensity of the

feeling of belonging to the group and the weight of the hierarchy considerably outweigh horizontal solidarity and any individualist temptation.

84. The groups are intensely competitive but comprise solidarity with their members. They readily accept plurality of ideas, but without admitting any breach of respect for the hierarchy. They also have other characteristics: the priority given to the interests of the group in the event of a conflict between the group and the interests of an individual. The objective is to reach a consensus based on harmony and peace. An individual must make sacrifices for the good of the group. Decisions are generally taken unanimously.

85. Exclusionism, i.e. the distinction made between members and non-members, leads to difference in the treatment of each category.

86. This hierarchical concept of society has consequences that strongly influence the functioning of the group and the behaviour of each individual. Within a given group, anyone who, for example, was unaware of the respective positions of people would be able neither to speak, nor to sit, nor to eat. Thus, highly subtle distinctions of expression are made to take into account the social relationship between the speaker and the person he is speaking to. The formulation and the tone must be appropriate to a superior person (elder, father, mother, notable, king), to an equal or to an inferior. Behaviour and language are closely linked. Compared with western languages and customs, this constitutes a fundamental difference which, in my humble opinion, constitutes the richness of African culture.

87. The abandonment of this richness goes some way to explaining our inability to be responsible for ourselves and to ensure our welfare. "Nothing costs more than to disdain one's origins" said appropriately Régis Debray.

Lack of a taste for risk

88. The spirit of challenge and the temptation to do the impossible constitute, to my way of thinking, the best weapon to vanquish the fear of not doing well, of failing, of dying, etc., and to recover self-confidence. In my youth, I was afraid of nothing. Unaware of danger, I took all imaginable risks. I loved adventure. Today I think that that was attributable to the fact that I had no past. I could look towards the future. I had nothing, no anguish, since being full of life I was not conditioned to keeping a status quo.

89. Today, youth is educated, by the will of the colonizer, to live in comfort, abundance, under the well-wishing conduct of a white advisor. This bearer of a mission instils in youth an education of fear. You cannot go on strike because soldiers and uncaring politicians could give the order to open fire on you. You do not have the right to complain about the mediocracy of your teacher and of his courses since you could be expelled. What is important is not your training, but your diploma. Even if you know nothing, what counts in life is the ability to submit yourself to the advice of a technical advisor put at your disposal gratuitously by the protecting power. Ever since colonization, our education has been based on false concepts. A seller of eggs is not provocative, it is said, since he runs the risk of having his eggs broken. But that is to forget that, even if you do not attack, the enemy may attack you and the result will be the same, whereas by attacking him you may prevent any new aggression. It is to forget that the capacity for innovation, and therefore of change, may enable you to produce greater quantities and qualities of eggs.

90. The education of the warrior, received by our parents, is forbidden, with but a few exceptions. However, it is that education that gave the capability of facing challenges, that forged their character and their will, which gave them the enthusiasm and the will to work.

91. Here again, the record is bitter. In most African companies we find young people, men and women who are satisfied. After having reached a higher level, they no longer study and are interested only in improving their individual standard of living. Having caught the "satisfaction syndrome", they fight to maintain what they have acquired. They hold themselves to "have made it" and sometimes are content to do their work correctly, to behave according to the wishes of the colonizer and to take it easy as far as possible. They are rarely conscious of the fact that they are exiling themselves in complacent and sterile self-satisfaction. e

92. However, they should not be tempted to say "that's it, I've made it!". The most critical time is the time at which you think you have reached your objective. Once you have reached an objective, you should set yourself a further one, as far away as possible in order not to end up in sterile self-satisfaction. You should never forget that, although it is difficult to reach the top, it is much easier to fall from it.

IV. REASONS TO HOPE

93. The picture I have painted here may make you think that Africa is lost or that it is going down a cul-de-sac. However, that is far from the truth. The aim of my paper is to sound the alarm, to attempt to set in motion in Africa the "end of recreation" syndrome.

94. A few isolated, but solid elements permit me to envisage the future with some optimism. These are to be found in the African potential that is appearing on the horizon, around OAPI, around the action of Governments and of African enterprises.

(a) The existing potential

95. This potential is to be found both at a human level but also at both the level of natural resources and at that of enterprises.

At the level of human resources

96. The number of African engineers working in western laboratories and in large multinational firms amounts to hundreds of thousands. These men, sometimes bearing a certain genius, constitute a future potential reserve in the field of scientific and technical research in order to develop African resources.

97. Increasingly, Africans send their children to finish their training at the most famous western universities: Polytechnique (France), Harvard, MIT, Princeton (USA), and in the great German, English and Japanese universities. This phenomenon has the aim of remedying the fatal effects of the degradation in the educational system in Africa.

98. Finally, the awareness reached by Governments, lawmakers and African people that its educational system can at best lead to stagnation and at worst to regression. This explains the proliferation of general assemblies of education in numerous African States these last five years in order to rethink the educational system. The ultimate aim being to improve the system for acquiring knowledge which is the mother of innovation.

99. Researchers and men of action living in Africa, despite fairly modest means, succeed in filing with OAPI and other intellectual protection institutes throughout the world a number of patents. The number is very small, for example, according to a report drawn up by the World Bank, all the African countries together file each year only half as many patents as Switzerland. Nevertheless, the efforts exist, and they are quite perceptible.

At the level of enterprises

100. The importance of the number of people who today orient themselves towards enterprise, in particular, and in Africa, in general, permits us to think that a taste for risk is beginning to arise quite naturally. These few observations permit us to claim that hope is dawning. However, it is difficult in Africa to meet the head of an enterprise capable of explaining how the process established was conceived and implemented. The process that he has himself conceived, or together with his team, has generally been implemented intuitively; no formulation having been rationally carried out. This means that the ability to innovate is associated with a whole hoard of non-relevant phenomena. All this is a consequence of a certain number of obstacles within the enterprise itself that lead to the inhibition, or even suffocation, of a spirit of innovation.

101. Let me give a few examples in this context:

- “we are living in a world in which everything has already been invented;”
- “you have nothing else to do; all that you are asked to do is to correctly apply that which exists;”
- “innovation is no longer possible, at least not at your level.”

102. We are in a field of generic products (product for which the patents are already in the public domain).

103. Unfortunately, there is not one single field of everyday products in an enterprise, there always exists a means of distinguishing them. The fact of regarding the product as being ordinary within an enterprise stems, in my opinion, from the simple will of the enterprise concerned. For example, what is more ordinary than water, the mother of all basic commodities! Nevertheless, the French have mastered the marketing of this natural element under several trademarks, such as Vittel, Evian and Perrier. They have done so with such success that they have attracted the attention of innovators. Thus, the firm Nordica has been created and has added various fruit flavors: strawberry, raspberry and lemon. And then we have Clearly Canadian, with fruit flavors and bubbles to produce a fruit flavored sparkling water. Finally, a further enterprise has decided to add tea to the mixture thus giving Snapple.

104. We are talking of enterprises of small size. We would never have had the means of the large enterprises to devote to research. Innovation research is out of our reach. Let us prepare ourselves to copy what has already been done, what has fallen into the public domain.

105. You are born inventive. This is a quality that we do not have. That is a great insurmountable obstacle to innovation. You will agree with me that it is wrong to believe that there exist only a small number of privileged persons who are born inventors whereas the mass of other persons do not have such a quality.

106. We believe that the ability to innovate within a given entity depends on the management system rather than on personal characteristics.

107. For example: within our bank in Cameroon, the CCEI Bank, we have established a research prize awarded to the best official who has contributed significant added value to our products. Thus, for some ten years already, we have remained leaders in respect of the creation of new products on the banking market in central Africa, simply on account of the stimulated ingenuity of our officials.

108. A further example proves that inventive behavior depends on a process and not on a characteristic. If we look at China and Hong Kong, we may ask how it is that for 40 years the Hong Kong Chinese have been so innovative whereas during the same period the opposite phenomenon may be observed with their cousins in the People's Republic? After all, they have the same genes. What is therefore so different? In my opinion, it is the economic and social system. Whereas the economic system of Hong Kong has stimulated the blossoming of innovation, the economic and political system of continental China has suffocated it. An additional proof, even more recent, supports this observation. Ever since the People's Republic began some years ago a reform of its economic and social system, innovation has begun to appear throughout the continent.

109. It is the organizational processes established by the management of an enterprise that lead to an environment conducive to innovation and to the creation of new products.

110. These secrets of success of such an organization may be resumed in the following six points:

- recognize and accept the right to make a mistake;
- cultivate a taste for risk;
- develop a passion for change;
- cultivate elitism and promotion of merit;
- a permanent search for equity;
- develop a spirit of collaboration and common effort towards success.

At the level of natural resources

111. The soil and the earth of Africa are not sufficiently explored, fields of exploration remain very big both as regards agriculture as also the soil and the earth.

112. Faced with that potential, Africans have not honed their spirit of curiosity as regards the role and nature of things surrounding them. In brief, scientific spirit and the spirit of research have not been truly developed in today's Africa, why is that? Because Africans long refused themselves the right to mistakes.

113. The right to a mistake is a fundamental right for any researcher or, I might say, for any human being who wishes to progress.

114. The most recent scientific magazine that I have read concerning the success of surgery reveals that the most decisive factor, by far, for the success of a surgical intervention is the volume of operations that the surgeon carries out day today in his hospital.

115. That samemagazinealso pointsoutthatitisparticularlyintimeofwarthatsurgery advancesthemost.Thatiscertainlyatragicrevelation,butasweallknow,duringwars surgeons have a little timetolose.They musttaketheriskandthey mustdosorapidly.Time playsagainstthem,isthatthereforetheir motto?

116. Surgerythereforerequiresamultiplicityofattempts,evenwiththeriskoferrors,in orderforittobe a littlebettereachtimethanitwaspreviously.

117. My meetingswithanumberofresearchersandmenofactioninAfricahaveenabledme toobservethegrowingawarenessofthevalueofamistakeasanecessaryfactororlearning forthedevelopmentofresearch.

118. In1989,Iwasfortunateenoughtovisitacraftweaponsmanufacturingunitinthe RepublicofSouthAfricathatwasproducingautomaticarms.

119. I hadthepleasantsurprisetonotthateachmodelbeganwiththe productionofa prototype.Inthatenterprise,asinthelargewesternenterprises,theconstructionofa prototypeisamatterofculture,ofstrategy,ofknow-how.WhenIreturnedtherein1998,it hadbecomeaseriouscompetitorforwesternunitsin the tradeinarms,withstate-of-the-art weaponsatverycompetitiveprices.

120. InanenterpriseinCameroonwhichmanufacturesthe“magiccube”,Ihadthepleasant surpriseofreadingonthepostersonthewall:

- iftwoofyourmentthinkthesame thing,sackoneofthem;
- whatdoyouthinkistheuseofduplicates?JERRYKRAUSE;
- congratulationstothosewhodonotagreewithus.

121. Thatrequestrevealsanemergingscientificspiritthatfeedsourhopes.

ACTION OF OAPI (AFRICAN INTELLECTUAL PROPERTY ORGANIZATION)

122. Thisbody,whosemaintaskistheprotectionoftheintellectualworksofAfricansorof thoselivinginAfrica,hasaddedoneveryimportantmission:thepromotionofthecreationof intellectualworks.

123. This hastwo aspects:

- the promotion of research;
- the development of patents.

124. This promotion action is reflected at practical level by subsidies afforded to researchers whosubmitrelevantresearchprojects.

125. Thedevelopmentofproductsofresearchwhichiscurrentlybeingsetup,withthe assistanceoftheCCEIBank,inCameroonmaybereflectedinthecreationofariskcapital fund,bypromotionandbythepopularizationofpatents.

Development of international communication

126. In the development of communication, the factor that removes a major handicap for African researchers is Internet.

127. This tool gives access to a mass of information hitherto inaccessible due to the costs of obtaining access.

128. Your computer screen will permit you to accede to a maximum of information available in the most important fields, and that will enable any researcher to avoid reinventing a wheel that turns, to expedite the progress of his research, to have all information on sources of finance available in a given field of research, to make contact intentionally with other researchers in his field throughout the whole world in order to disseminate the results of his research, in order to have the benefit of the criticism of other researchers and practitioners involved.

(b) Financing of innovation

129. In reality, the problem of the financing of innovation is above all bound up with the informational constraints that put a brake on the contribution of external capital and therefore lead to a situation in which the necessary funds for financing research and the product of research in Africa become a rarity.

130. Happily today, timid solutions are emerging here and there to ease the highly negative effects of such a lack. One may refer, in the main, to:

- risk capital funds;
- assistance from the international community;
- efforts made by the African Governments.

Capital risk funds are an opportunity for Africa

131. This problem is one of major importance since in Africa the great majority of enterprises are of a small size, with the exception of the subsidiaries and multinationals; however, such enterprises have frequently important and recurrent financial needs, whether to finance plant, to face up to research and development investment, etc. The offer of funding by the bankers is not only ill adapted but also very expensive.

132. Ill adapted because the banks mostly offer short-term resources whereas the nature of the investments require long-term resources.

133. Very expensive because the banks have a tendency to apply high rates of interest than they do to the large size enterprises in order to cover the additional risk engendered by the situation of a small enterprise. Guarantees are frequently two to three times higher than the amount of the credits sought, and that is out of the reach of the small and medium-sized enterprises.

134. This attitude may be explained in part by the greater risk of failure during the research, development and start-up phases due to organizational obstacles and to the difficulty in finding qualified staff wishing to return to work in Africa.

135. As regards the machinery for financing by means of risk capital, the acquisition of outside capital in order to finance an innovative project requires that the procedures be defined to permit those giving the capital to control the development of the enterprise and limit the impact of any conflicts of interest.

136. Today, it is generally accepted that risk capital constitutes the main source of capital for young innovating enterprises throughout the world.

137. Africa's opportunity comes from the initiatives now taken on the African continent by the international financing company (subsidiary of the World Bank) which has been injecting funds into African regions for the last eight years. In addition to these initiatives, there are those of the African trading banks, amongst which we must mention the CCEI Bank group in Africa, which currently supports the activities of WIPO in that direction. We can also find in various western countries such as the USA and the Netherlands initiatives for funds to be invested in Africa.

Offer of funding by the international community

138. Besides private funding, the international community, both at multilateral and bilateral level, offers considerable resources for financing research in Africa. These funds are either sent to the institute, or directly to the researchers. However, the problem that arises is that of the proper use of the funds and the achievement of aims.

The efforts made by the African Governments

139. The fact that the great majority of African countries possess a Ministry of Scientific Research gives an idea of the awareness gained of the importance of innovations in the development and growth of a nation. Additionally, a report by the World Bank, published in 1999 stresses and welcomes the growth of the budgets devoted to scientific and technical research in the great majority of the most advanced African countries since 1994.

140. These rather encouraging signs enable the future to be envisaged with a little more optimism.

CONCLUSION

141. Taking risks does not guarantee success. On the other hand, if you refuse to take risks, I can assure you without the shadow of a doubt that you will never get anywhere. "Madmen" often make a fool of themselves, and end so habitually. They are nevertheless behind all the great success stories the world has ever known.

142. We may note that self-satisfaction is a prelude to failure; satisfaction and mediocrity are the enemies of progress, whereas self-confidence feeds the challenge and the final aim must be staked out at the summit in order to continue with sufficiency.

[End of document]